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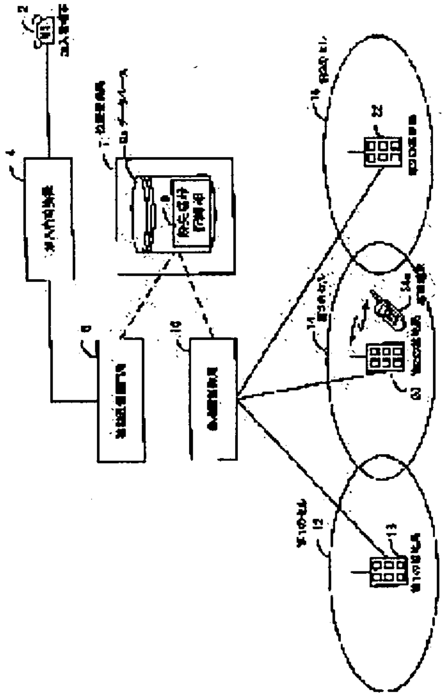
(54) METHOD FOR PROTECTING DATA RECORDED IN MOBILE TERMINAL, MOBILE TERMINAL DATA PROTECTION SYSTEM AND MOBILE TERMINAL

(57)Abstract:



PROBLEM TO BE SOLVED: To provide a method for preventing data recorded in a missing mobile terminal from being read, falsified or deleted by other and to provide a mobile terminal data protection system.

SOLUTION: When a possessor of a mobile terminal 24a submits a missing notification of the mobile terminal 24a to a position registration station 7, a missing notification recording section 9 of the position registration station 7 records the missing information. When the mobile terminal 24a is lost in a cell area to which no radio wave reaches, a finder of the mobile terminal 24a enters a wrong password, the key operation of the mobile terminal 24a is invalidated, and when a correct password is entered, key operations other than the password are invalidated. When the missing mobile terminal 24a enters an area of a second cell 14, data of the mobile terminal 24a are transferred to a database 8a of the position registration station 7 and recorded therein. At the same time, a command from the position registration station 7 deletes the data of the mobile terminal 24a. Thus, the data of the mobile terminal 24a and the security of the data can be ensured.

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CLAIMS

[Claim(s)]
[Claim 1] In the approach of preventing others reading the data recorded into the lost migration terminal, and altering or eliminating them The 1st step which records loss information on the report-of-the-loss-of-an-article record means in a location registration authority based on the report of the loss of an article from the owner of a migration terminal who lost, The 2nd step which judges whether said migration terminal exists in a base station and the area which can be communicated, When said migration terminal exists in the area in which said base station and communication are possible and loss information is recorded on said report-of-the-loss-of-an-article record means, the key stroke of said migration terminal is made into an invalid. When said migration terminal exists in the area in which said base station and communication are impossible The 3rd step this password judges whether it is the right to be when a password is entered, The password entered by making the key stroke of said migration terminal into an invalid when the entered password is not right is the approach of protecting the data with which it was recorded on the migration terminal with which it is characterized by including the 4th step to which key strokes other than this password are made into an invalid, at the time of the right.
[Claim 2] When the migration terminal which went through said 4th step moves into the area in which said base station and communication are possible, The 5th step which transmits the data within this migration terminal to the database in said location registration authority, making the key stroke of said migration terminal into an invalid, How to protect the data recorded on the migration terminal according to claim 1 characterized by including the 6th step to which said location registration authority which received said data saves the received data in said database.
[Claim 3] Furthermore, the 7th step to which said location registration authority sends out a data erase command to said migration terminal after saving the data within said migration terminal in the database of this location registration authority, The approach said migration terminal protects the data recorded on the migration terminal according to claim 2 characterized by including the 8th step which eliminates the data within this migration terminal based on the data erase command which received.
[Claim 4] Furthermore, the data of said migration terminal saved by the demand in said database when the loss information on said migration terminal is deleted from said report-of-the-loss-of-an-article record means are the approach of protecting the data recorded on the migration terminal according to claim 3 characterized by including the 9th step downloaded to this migration terminal.
[Claim 5] In the migration terminal data protection system which prevents that others read the data recorded on the lost migration terminal, and alter or eliminate them A report-of-the-loss-of-an-article record means to record the loss information on this migration terminal based on the report of the loss of an article from the owner of a migration terminal who lost, A means to judge whether said migration terminal exists in a base station and the area which can be communicated, When said migration terminal exists in the area in which said base station and communication are possible and loss information is recorded on said report-of-the-loss-of-an-article record means, the key stroke of this migration terminal is made into an invalid. When said migration terminal exists in the area in which said base station and communication are impossible A means by which this password judges whether it is the right when a

password is entered, It is the migration terminal data protection system by which the key stroke of said migration terminal is made into an invalid when the entered password is not right, and the entered password is characterized by having a means to make key strokes other than this password into an invalid, at the time of the right.

[Claim 6] Furthermore, when the migration terminal made into the invalid moves a key stroke into this base station and the area which can be communicated in the area in which said base station and communication are impossible, A means to transmit the data within this migration terminal to the database in said location registration authority, making the key stroke of said migration terminal into an invalid, The migration terminal data protection system according to claim 5 characterized by having a means by which said location registration authority which received said data saves the received data in said database.

[Claim 7] Furthermore, the migration terminal data protection system according to claim 6 characterized by having a means by which said location registration authority sends out a data erase command to said migration terminal after saving the data within said migration terminal in the database of this location registration authority, and a means by which said migration terminal eliminates the data within this migration terminal based on the data erase command which received.

[Claim 8] Furthermore, the migration terminal data protection system according to claim 7 characterized by having a means to download the data of said migration terminal saved in said database to this migration terminal by demand when the loss information on said migration terminal is deleted from said report-of-the-loss-of-an-article record means.

[Claim 9] It is the migration terminal which makes a key stroke an invalid when the password in which it made a mistake when this migration terminal exists in a base station and the area which cannot be communicated under the conditions by which the loss information on a migration terminal was recorded on the report-of-the-loss-of-an-article Records Department prepared in the location registration authority is entered, and is characterized by to have the means which makes an invalid key strokes other than this password when a right password is entered.

[Claim 10] Furthermore, the migration terminal according to claim 9 characterized by having a means to transmit the data saved at self to the database in a location registration authority, making a key stroke into an invalid when said migration terminal which exists in the area in which said base station and communication are impossible moves into this base station and the area which can be communicated.

[Claim 11] Furthermore, the migration terminal according to claim 10 characterized by having a means to eliminate the data saved at self after transmitting the data saved at self to the database of said location registration authority.

[Claim 12] Furthermore, the migration terminal according to claim 11 characterized by having a means to download the self data saved in the database in said location registration authority by demand when the loss information on said migration terminal is deleted.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention is a thing about the approach and migration terminal data protection system which protect the data recorded on the migration terminal. In more detail It is a thing about the approach and system by which the data recorded on the lost migration terminal prevent it being read to others, and being altered or being eliminated. Further in a detail It is related with the approach and system which attain security strengthening of the data protection of the migration terminal which exists in the place which an electric wave does not reach.
[0002]
[Description of the Prior Art] A cellular phone in recent years, PHS, PDA with communication facility (Personal Digital Assistant device), etc. have various functions (henceforth a migration terminal), and the owner is recording various data, for example, customer list of names, the address book, the creation document, etc. on these migration terminals. After these data turn on a migration terminal, when a user enters an ID number or a password, they are displayed on the screen of the migration terminal, and can be transmitted to other communication terminals, such as a personal computer. Thus, since the data recorded on the migration terminal can be transmitted and used for other communication terminals, they are very convenient.
[0003] Below, the conventional migration communication system is explained briefly. Drawing 10 is drawing showing the outline of the conventional migration communication system. In drawing 10 migration communication system The subscriber terminal 2 and the subscriber exchange 4, With the mobile communication gateway office 6, the base station control station 10, and the location registration authority 7 that is established in the mobile communication gateway office 6 or base station control station 10 grade, and has a database 8 It is constituted by the 1st cel 12 equipped with the 1st base station 18, the 2nd cel 14 equipped with the 2nd base station 20 and migration terminal 24, and the 3rd cel 16 equipped with the 3rd base station 22. Here, as an example, the migration terminal 24 carries out call origination, and the case where the subscriber terminal 2 of a fixed circuit is telephoned is explained. In addition, since it is also the same as when the migration terminal 24 carries out call origination and telephones other migration terminals, the explanation is omitted.
[0004] In migration communication system, many several km cels are arranged from 100m of radius numbers, and it is constituted so that a large service area may be covered. A base station is put on each cel and each base station 18 (20 and 22) is connected with the base station control station 10 by the fixed circuit. The migration terminal 24 is connected by the base station 20 and wireless circuit in area. If the migration terminal 24 carries out call origination now, the migration terminal 24 will be first connected by the 2nd base station 20 and wireless circuit. And through the base station control station 10, the mobile communication gateway office 6, and the subscriber exchange 4 which were connected by the fixed circuit, it connects with a partner's subscriber terminal 2, and the 2nd base station 20 can communicate now the migration terminal 24 and the subscriber terminal 2. The database 8 put on the location registration authority 7 is recording ID of the migration terminal proper which is the attribute of

each migration terminal, the telephone number, accounting information, the positional information of in which base station area a migration terminal exists, etc. While the migration terminal 24 is switching on the power source, between the migration terminal 24 and the 2nd base station 20 in area, a communication link is performed at fixed spacing, the positional information of the migration terminal 24 is updated, and the update information is recorded on the database 8 of the location registration authority 7.

[0005] On the other hand, when the subscriber terminal 2 carries out call origination and communicates with the migration terminal 24, it asks the database 8 of the location registration authority 7 where the attribute of the migration terminal 24 is recorded, and a simultaneous call is performed from the base station in the area (it consists of two or more cels, and is usually the magnitude of a prefecture unit) to which the migration terminal 24 belongs. A response of the migration terminal 24 performs a communication link between the subscriber terminal 2 and the migration terminal 24.

[0006] In the above conventional migration communication system, system behavior when the migration terminal 24 is lost is explained below using drawing 10 - drawing 13 . Drawing 11 is a flow chart explaining the actuation in which those who lost the migration terminal take out a migration terminal report of the loss of an article, and the purport of loss is registered into a location registration authority in the conventional migration communication system. In the conventional migration communication system, drawing 12 is a flow chart explaining the actuation which refuses the communication link with a migration terminal and a base station, when a migration terminal is lost. In the conventional migration terminal data protection system, drawing 13 is a sequence chart explaining the actuation which refuses the communication link with a migration terminal and a base station, when a migration terminal is lost.

[0007] First, in drawing 11 , the owner of the migration terminal 24 who lost submits notice [purport / of loss] to a communication link entrepreneur (step S101). Then, a communication link entrepreneur registers the purport which the migration terminal 24 lost into the database 8 of the location registration authority 7 (step S102).

[0008] Then, in drawing 12 , if those who found the migration terminal 24 turn ON the power source of the migration terminal 24 (step S104), the migration terminal 24 will try communication with the 2nd base station 20. It corresponds to the step (step T200) to which this actuation performs connection processing of an establishment sake for a wireless circuit between the 2nd base station 20 by the migration terminal 24 exchanging a communication signal between the 2nd base station 20 in drawing 13 .

[0009] If communication with return, the migration terminal 24, and the 2nd base station 20 is possible to drawing 12 (in the case [Step S106] of YES), it will check whether the 2nd base station 20 asks the database 8 of the location registration authority 7, and the information on migration terminal loss is in the database 8 of the location registration authority 7 (step S110). It corresponds to the step (step T204) to which the 2nd base station 20 establishes connection between a location and a registration authority 7 in drawing 13 (step T202), and, as for this processing, the location registration authority 7 confirms whether the information on migration terminal loss is registered into the database 8.

[0010] the case where it returns to drawing 12 and there is no information on loss into the database 8 of the location registration authority 7 -- (-- step S110 -- the case of NO --) -- a user's location registration is performed (step S113), and a user can perform the usual communication link by the key stroke after that (step S114).

[0011] the case where the information on migration terminal loss is in the database 8 of the location registration authority 7 on the other hand -- (-- step S110 -- the case of YES --) -- a user's location registration is not performed (step S112). In that case, the 2nd base station 20 is constituted so that the communication link with the migration terminal 24 may be refused (step S134). When this processing has the information on loss in the database 8 of the location registration authority 7 in drawing 13 , NG signal with loss information is sent out to the migration terminal 24 (steps T206 and T208), and the 2nd base station 20 corresponds to the step (steps T212 and T213) which refuses communication with the migration terminal 24 based on that signal. In addition, it shall say "communication" meaning an exchange of the signal for connecting a migration terminal to a base station, and, as for "a communication link", a user telephoning to a terminating subscriber, or exchanging data in this specification.

[0012]

[Problem(s) to be Solved by the Invention] However, in the conventional migration communication system, the user of the migration terminal 24 cannot regain the loss data currently recorded on the lost migration terminal 24. In drawing 12 , when a finder folds the antenna of the migration terminal 24 intentionally, or in being in the location which the electric wave from a base station does not reach Since communication with the 2nd base station 20 cannot do the migration terminal 24 (in the case [Step S106] of NO), a finder The key of the found migration terminal can be operated, an ID number or a password can be entered (step S130), and the data recorded on the migration terminal 24 can be read, altered or eliminated (step S132).

[0013] In addition, when loss occurs at the conventional migration terminal, and usually setting up the password of four digits first and carrying out actuation of a migration terminal or R/W of data, there is much what requires the input of this password. Since the card will serve as a disable and the buzzer of warning etc. will sound from ATM equipment if it is ATM, such as a bank, and the password (personal identification number) in which it made a mistake when withdrawing money is entered continuously several times, a crime can be prevented to some extent. However, at the conventional migration terminal, it is possible to enter a password any number of times, and if a password is entered a maximum of 104 times when it is a password setup of 4 figures, it can surely hit in a password. By this, there is greatly a danger that the communication link by without notice [of a migration terminal], surreptitious use of the data talked over the telephone or saved, and improper use will be performed, and a great trouble may be made to not only him but the 3rd person.

[0014] As mentioned above, when the migration terminal is used by those who found the lost migration terminal, various problems arise to the owner of the migration terminal. That is, the owner of a migration terminal who lost is asked for the telephone rate of the lost migration terminal. Furthermore, when data, such as an address book recorded on the migration terminal, are read and abused by those who found, it is altered or it is eliminated, the owner of a migration terminal will suffer unexpected damage.

[0015] This invention was made in view of the above-mentioned technical problem, and when a migration terminal loses the place made into the purpose and the migration terminal can communicate with a base station, the approach and migration terminal data protection system which protect the data in the migration terminal are offered by making the key stroke of the migration terminal into an invalid.

[0016] Moreover, other purposes of this invention offer the approach and migration terminal data protection system which protect the data in a migration terminal by transmitting the data recorded in the migration terminal to the database of a location registration authority, when a migration terminal is lost.

[0017] The purpose of further others of this invention offers the approach and migration terminal data protection system which protect the data in a migration terminal by eliminating the data recorded on the migration terminal, after transmitting the data recorded on the migration terminal to the database of a location registration authority.

[0018] this invention -- being the further -- others -- the purpose offers the approach and migration terminal data protection system which can attain security strengthening of the data protection in a migration terminal by making the key stroke of a migration terminal into an invalid, even when it loses in the location where a migration terminal cannot communicate with a base station and a right password is entered.

[0019]

→ [Means for Solving the Problem] In order to attain the above-mentioned purpose, the approach of protecting the data recorded on the migration terminal in this invention In the approach of preventing others reading the data recorded into the lost migration terminal, and altering or eliminating them The 1st step which records loss information on the report-of-the-loss-of-an-article record means in a location registration authority based on the report of the loss of an article from the owner of a migration terminal who lost, The 2nd step which judges whether a migration terminal exists in a base station and the area

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which can be communicated, When a migration terminal exists in a base station and the area which can be communicated and loss information is recorded on the report-of-the-loss-of-an-article record means, the key stroke of a migration terminal is made into an invalid. When the migration terminal exists in a base station and the area which cannot be communicated The 3rd step a password judges whether it is the right to be when a password is entered, When the entered password is not right, the key stroke of a migration terminal is made into an invalid, and as for the time of the right, the entered password is characterized by including the 4th step which makes key strokes other than a password an invalid. password

[0020] Moreover, the approach of protecting the data recorded on the migration terminal in this invention Furthermore, when the migration terminal which went through said 4th step moves into a base station and the area which can be communicated, It is characterized by including the 5th step which transmits the data within a migration terminal to the database in a location registration authority, and the 6th step to which the location registration authority which received data saves the received data in a database, making the key stroke of a migration terminal into an invalid. database

[0021] Moreover, the approach of protecting the data recorded on the migration terminal in this invention is characterized by to be included the 7th step to which a location registration authority sends out a data erase command to a migration terminal further after saving the data within a migration terminal in the database of a location registration authority, and the 8th step which eliminate the data within a migration terminal based on the data erase command which the migration terminal received. data erase command

db [0022] Moreover, it is characterized by the data of said migration terminal with which the approach of protecting the data recorded on the migration terminal in this invention is saved by the demand in the database when the loss information on a migration terminal is further deleted from a report-of-the-loss-of-an-article record means containing the 9th step downloaded to this migration terminal.

[0023] Moreover, the migration terminal data protection system of this invention In the migration terminal data protection system which prevents that others read the data recorded on the lost migration terminal, and alter or eliminate them A report-of-the-loss-of-an-article record means to record the loss information on a migration terminal based on the report of the loss of an article from the owner of a migration terminal who lost, A means to judge whether a migration terminal exists in a base station and the area which can be communicated, When a migration terminal exists in a base station and the area which can be communicated and loss information is recorded on the report-of-the-loss-of-an-article record means, the key stroke of a migration terminal is made into an invalid. When the migration terminal exists in a base station and the area which cannot be communicated When the password into which the password was entered as a means to judge whether it is the right when a password was entered is not right, the key stroke of a migration terminal is made into an invalid, and the entered password is characterized by having the means which makes key strokes other than a password an invalid at the time of the right.

[0024] Moreover, the migration terminal data protection system of this invention Furthermore, when the migration terminal made into the invalid moves a key stroke into a base station and the area which can be communicated in a base station and the area which cannot be communicated, It is characterized by having a means to transmit the data within a migration terminal to the database in a location registration authority, and a means by which the location registration authority which received data saves the received data in a database, making the key stroke of a migration terminal into an invalid.

[0025] Moreover, the migration terminal data protection system of this invention is characterized by having a means by which a location registration authority sends out a data erase command to a migration terminal further after saving the data within a migration terminal in the database of a location registration authority, and a means to eliminate the data within a migration terminal based on the data erase command which the migration terminal received. send data erase command

[0026] Moreover, further, the migration terminal data protection system of this invention is characterized by having a means to download the data of the migration terminal saved in the database to a migration terminal by demand, when the loss information on a migration terminal is deleted from a report-of-the-loss-of-an-article record means.

[0027] Moreover, the migration terminal of this invention makes a key stroke an invalid, when the password in which it made a mistake when this migration terminal exists in a base station and the area which cannot be communicated under the conditions by which the loss information on a migration terminal was recorded on the report-of-the-loss-of-an-article Records Department prepared in the location registration authority is entered, and when a right password is entered, it is characterized by to have the means which makes an invalid key strokes other than this password.

[0028] Moreover, the migration terminal of this invention is characterized by having a means to transmit the data saved at self to the database in a location registration authority, making a key stroke into an invalid, when the migration terminal which exists in the area in which a base station and communication are still more nearly impossible moves into a base station and the area which can be communicated.

[0029] Moreover, after the migration terminal of this invention transmits further the data saved at self to the database of a location registration authority, it is characterized by having a means to eliminate the data saved at self.

[0030] Moreover, further, the migration terminal of this invention is characterized by having a means to download the self data saved in the database in a location registration authority by demand, when the loss information on a migration terminal is deleted.

[0031]

[Embodiment of the Invention] Gestalt 1. drawing 1 of operation is drawing showing the whole migration terminal data protection system configuration which protects the data recorded on the migration terminal in the gestalt of 1 operation of this invention. In drawing 1 Migration communication system, the subscriber terminal 2, and the subscriber exchange 4, With the mobile communication gateway office 6, the base station control station 10, and the location registration authority 7 that is established in the mobile communication gateway office 6 or base station control station 10 grade, and has database 8a It is constituted by the 1st cel 12 equipped with the 1st base station 18, the 2nd cel 14 equipped with the 2nd base station 20 and migration terminal 24a, and the 3rd cel 16 equipped with the 3rd base station 22.

[0032] The migration terminal data protection system feature in this invention is that migration terminal 24a which has the function to prevent read-out, an alteration, and elimination of the data which made the key stroke of a migration terminal the invalid and were recorded by the migration terminal in that database 8a put on the location registration authority 7 is equipped with the report-of-the-loss-of-an-article Records Department 9 and the area of the 2nd cel 14 exists. In addition, in drawing 1 , the same sign is given to the same component as the conventional system shown in drawing 10 , and the explanation which overlaps the above-mentioned is omitted.

[0033] Also in the gestalt 1 of operation, migration terminal 24a carries out call origination, and explains the example which telephones the subscriber telephone 2 of a fixed circuit. Of course, even when migration terminal 24a carries out call origination and telephones other migration terminals, the actuation in migration terminal 24a is the same as that of the conventional example. Since it is also the same as the conventional example when the subscriber terminal 2 carries out call origination and communicates with migration terminal 24a, the explanation is omitted.

[0034] In the migration communication system in the gestalt 1 of operation, actuation of a migration terminal data protection system when migration terminal 24a is lost is explained below using drawing 1 - drawing 4 . Drawing 2 is a flow chart which explains the actuation registered into the report-of-the-loss-of-an-article Records Department in a location registration authority in the purport of loss based on the report of the loss of an article from the owner of a migration terminal in the migration terminal data protection system of the gestalt 1 of operation concerning this invention. In the migration terminal data protection system of the gestalt 1 of operation concerning this invention, drawing 3 is a flow chart explaining the actuation which makes the key stroke of a migration terminal an invalid, when a migration terminal is lost. In the migration terminal data protection system of the gestalt 1 of operation concerning this invention, drawing 4 is a sequence chart explaining the actuation which makes the key stroke of a migration terminal an invalid, when a migration terminal is lost.

[0035] First, in drawing 2 , the owner of migration terminal 24a who lost takes out a report of the loss of an article to a communication link entrepreneur (step S101). Then, a communication link entrepreneur registers the purport which migration terminal 24a lost into the part corresponding to each migration terminal in the report-of-the-loss-of-an-article Records Department 9 put on database 8a of the location registration authority 7 (step S102).

[0036] Then, in drawing 3 , if those who found migration terminal 24a turn ON the power source of migration terminal 24a (step S104), migration terminal 24a will try communication with the 2nd base station 20. In drawing 4 , migration terminal 24a exchanges a communication signal between the 2nd base station 20, and this processing corresponds a wireless circuit to the step (step T200) which performs connection processing of an establishment sake between the 2nd base station 20.

[0037] If communication with return and the 2nd base station 20 is possible to drawing 3 (in the case [Step S106] of YES), it will check whether the 2nd base station 20 asks the report-of-the-loss-of-an-article Records Department 9 in database 8a of the location registration authority 7, and the information on loss is in the report-of-the-loss-of-an-article Records Department 9 of the location registration authority 7 (step S110). In drawing 4 , the 2nd base station 20 establishes connection between a location and a registration authority 7 (step T202), and, as for this processing, the location registration authority 7 corresponds [whether the information on loss is registered into the report-of-the-loss-of-an-article Records Department 9, and] to the step (step T204) to check. Again, communication with return and the 2nd base station 20 is possible to drawing 3 , and ****** (in the case [106] of NO) and processing progress to it at drawing 9 explained later.

[0038] next -- the case where there is no information on loss into the report-of-the-loss-of-an-article Records Department 9 in drawing 3 -- (-- step S110 -- the case of NO --) -- a user's location registration is performed (step S113), and a user can perform the usual communication link by the key stroke after that (step S114). In drawing 4 , migration terminal 24a performs the usual connection actuation, and this processing corresponds to the step (step T214) which starts a communication link, if migration terminal 24a receives O.K. signal from the location registration authority 7 (step T206, step T208, step T210).

[0039] the case where the information on migration terminal loss is in the report-of-the-loss-of-an-article Records Department 9 in drawing 3 on the other hand -- (-- step S110 -- the case of YES --) -- a user's location registration is not performed (step S112). Then, the location registration authority 7 notifies that migration terminal 24a is lost to the migration terminal 24a (step S115). Migration terminal 24a which received this notice makes an invalid all the key strokes of migration terminal 24a (step S116). This processing sends out NG signal with loss information in the location registration authority 7 to migration terminal 24a through the 2nd base station 20 in drawing 4 (steps T206 and T208), and migration terminal 24a which received this NG signal corresponds to the step (steps T212 and T216) which makes an invalid all the key strokes of migration terminal 24a.

[0040] In addition, in this specification, since the part about the communication link of a migration terminal is the same as that of the conventional system, explanation has been omitted. It becomes impossible for those who found migration terminal 24a to read, alter or eliminate the data recorded into migration terminal 24a by such actuation.

[0041] When the information on migration terminal loss is in the report-of-the-loss-of-an-article Records Department 9, in addition to the function of the gestalt 1 of the operation which makes an invalid the key stroke of migration terminal 24a, the data recorded into migration terminal 24a are transmitted to the location registration authority 7, and the migration terminal data-protection system which can protect the data in migration terminal 24a explains in the gestalt 2 of gestalt 2. implementation of operation.

[0042] Drawing 5 is a flow chart explaining the actuation which transmits the data of a migration terminal to a location registration authority in the migration terminal data protection system of the gestalt 2 of operation concerning this invention. Drawing 6 is a sequence chart explaining the actuation which transmits the data of a migration terminal to a location registration authority in the migration terminal data protection system of the gestalt 2 of operation concerning this invention.

[0043] In drawing 5 , it is judged whether the key stroke of migration terminal 24a became an invalid (step S117). If having become an invalid is checked (in the case [Step S117] of YES), the key stroke of migration terminal 24a Migration terminal 24a communicates with the 2nd base station 20 (step S118), transmits the data recorded into migration terminal 24a to database 8a of the location registration authority 7 (step S120), and saves the data in database 8a of the location registration authority 7 (step S121). Thus, the sequential transfer of the data recorded into migration terminal 24a is carried out at database 8a of the location registration authority 7 until all data transfers are completed (step S122). This processing corresponds to the step shown in step T218, step T220, and step T222 in drawing 6 .

[0044] By above-mentioned processing, the data currently recorded on migration terminal 24a are saved at database 8a of the location registration authority 7, and the owner who lost migration terminal 24a can recover self data from database 8a of the location registration authority 7 later.

[0045] In the gestalt 3 of gestalt 3. implementation of operation, when the information on loss is in the report-of-the-loss-of-an-article Records Department 9 It can prevent the data recorded in migration terminal 24a being read, and being abused by eliminating the data recorded in migration terminal 24a in addition to the function of the gestalt 2 of the operation which transmits the data in migration terminal 24a to database 8a of the location registration authority 7. This explains the migration terminal data protection system which can protect data safely further.

[0046] Drawing 7 is a flow chart explaining the actuation which eliminates the data within a migration terminal in the migration terminal data protection system of the gestalt 3 of operation concerning this invention. Drawing 8 is a sequence chart explaining the actuation which eliminates the data within a migration terminal in the migration terminal data protection system of the gestalt 3 of operation concerning this invention.

[0047] In drawing 7 , if it is checked that the data of a migration terminal have been stored in database 8a of the location registration authority 7 (in the case [Step S123] of YES), the location registration authority 7 sends out a data erase command to migration terminal 24a (step S124). Migration terminal 24a will eliminate all the data recorded into migration terminal 24a, if a data erase command is received (step S125). The step this actuation is indicated to be to step T224, step T226, and step T228 in drawing 8 corresponds. In drawing 8 , step T224 is a step at which a data erase command is sent out to the 2nd base station 20 from the location registration authority 7, step T226 is a step at which the data erase command is sent out to migration terminal 24a from the 2nd base station 20, and step T228 is a step which eliminates the data in migration terminal 24a, when migration terminal 24a receives a data erase command from the 2nd base station 20.

[0048] Since all the data currently recorded on migration terminal 24a are eliminated from migration terminal 24a by such step, by it, they can prevent that the data memorized by migration terminal 24a are abused.

[0049] When migration terminal 24a is lost in the gestalt 4 of gestalt 4. implementation of operation in the location which an electric wave does not reach from any base station and an inaccurate password is entered by the finder, [not to mention] Actuation of the migration terminal data protection system by which the security of data protection is strengthened is explained without reading the data in migration terminal 24a, or being altered or eliminated, even when a right password is entered by the finder. That is, when the finder of migration terminal 24a goes to the location which the electric wave from which base station does not reach, either or folds the antenna of migration terminal 24a intentionally, as for connection, which base station becomes impossible [as for migration terminal 24a]. In such a case, it sets, and even if the key stroke of migration terminal 24a should be made into an invalid and a password should be correctly entered when the entered password was inaccurate, by making key strokes other than a password into an invalid explains the migration terminal data protection system which can prevent read-out of data, an alteration, and elimination.

[0050] Drawing 9 is a flow chart explaining the actuation which makes the key stroke of a migration terminal an invalid irrespective of whether the right password was entered by the finder in the migration terminal data protection system of the gestalt 4 of operation concerning this invention. Since it cannot perform communication with migration terminal 24a and the 2nd base station 20 as step S106 of drawing 3 shows in a finder's folding the antenna of migration terminal 24a intentionally or being in the location which an electric wave does not reach (in the case [Step S106] of NO), processing progresses to step S107 of drawing 9 from step S106. If the finder of migration terminal 24a does a key stroke and enters a password into the bottom of such a condition (step S107), as for the entered password, it will be

judged whether it is the right (step S108).
[0051] Here, since a password is not usually known when the finder of migration terminal 24a uses the migration terminal 24a, a password cannot be entered correctly in that case (in the case [Step S108] of NO). Therefore, the key stroke of migration terminal 24a is made into an invalid (step S109). Therefore, when an antenna is folded, or when those who found migration terminal 24a are in the location which an electric wave does not reach, and not only when it is in the location which an electric wave reaches, but when, they cannot read the data recorded on migration terminal 24a, or cannot alter or eliminate.
[0052] the case where the finder of migration terminal 24a should know the password, and a right password is entered on the other hand -- (-- step s108 -- the case of YES --) -- key strokes other than the password input of migration terminal 24a are made into an invalid (step S111). Even if a right password is entered into the finder of migration terminal 24a by this, there is no possibility that the data currently recorded in migration terminal 24a may be read, or it may be altered or eliminated.
[0053] However, in this case, even if the owner of migration terminal 24a itself enters a right password, since the key stroke is an invalid, migration terminal 24a cannot be used normally. Therefore, when an owner's own hand tends to return and migration terminal 24a tends to operate migration terminal 24a, the migration terminal 24 can be returned to a normal condition by offering the location registration authority 7 deletion of a report of the loss of an article. When migration terminal 24a is lost in the location which an electric wave does not reach from any base station and the report of the loss of an article of migration terminal 24a has come out, even if a right password is entered, higher security can be secured by making a key stroke into an invalid irrespective of whether you are a finder or you are an owner.
[0054] In addition, even when migration terminal 24a moves to the location which an electric wave reaches from the location which an electric wave does not reach, the invalid state of a key stroke is continued. Since migration terminal 24a is in the location which an electric wave reaches at this time, the data which the data currently recorded on migration terminal 24a are transmitted and saved like the gestalten 2 and 3 of the above-mentioned operation at database 8a of the location registration authority 7, and are recorded on migration terminal 24a are eliminated. Therefore, the reservation and security of data which were recorded on migration terminal 24a are fully secured. That is, the owner of migration terminal 24a can save reservation and safety of data by making the location registration authority 7 upload the data in migration terminal 24a, holding the invalid state of a key stroke, even if migration terminal 24a changes in the condition that an electric wave arrives from the condition that an electric wave does not arrive. In addition, about this explanation, since it is the same as the gestalten 2 and 3 of the above-mentioned operation, it omits.
[0055]
[Effect of the Invention] Since a key stroke becomes an invalid in being in the location which can communicate with a base station, it becomes impossible for those who found the migration terminal to read, alter or eliminate the data recorded into the migration terminal according to this invention, as explained above. Therefore, the security of the data recorded on the migration terminal is secured.
[0056] Furthermore, when a migration terminal is lost according to this invention, security is secured, without saving the data currently recorded on the migration terminal at database 8a of a location registration authority, and losing the data recorded on the migration terminal since the owner who lost the migration terminal later recovered self data from database 8a of a location registration authority.
[0057] Furthermore, according to this invention, since it is eliminated from a migration terminal after being saved at database 8a of a location registration authority, the data currently recorded on the migration terminal can prevent that the data memorized by the migration terminal are abused. Therefore, the security of the data recorded on the migration terminal is secured further.
[0058] Furthermore, since the key stroke of the found migration terminal is made into an invalid when the finder of a migration terminal is in the location which an electric wave does not reach according to this invention and the password entered by the finder is not in agreement with a predetermined thing, the data recorded on the migration terminal cannot be read, or it cannot alter or eliminate. Therefore, the security of the data recorded on the migration terminal is strengthened further.

[0059] Furthermore, since all key strokes other than the password of the migration terminal which it should have found when the password entered by the finder when a finder was in the location which an electric wave does not reach according to this invention was in agreement with a predetermined password are made into an invalid, read-out of the data recorded on the migration terminal, and an alteration or elimination can be prevented. In this case, although it becomes impossible to use it even if the owner of a migration terminal enters a right password, considering that the security of the data recorded on the migration terminal is strengthened much more, that effectiveness is far larger. Of course, if the owner of a migration terminal withdraws a report of the loss of an article to a location registration authority, again, a key stroke becomes effective and can use a migration terminal normally. In this case, desired data can be returned in an owner's own migration terminal from the database which a location registration authority has.

[0060] Furthermore, according to this invention, even if the finder of a migration terminal moves to the location which an electric wave reaches from the location which an electric wave does not reach, the invalid state of a key stroke is continued. In this case, since a migration terminal is in the location which an electric wave reaches, the data which the data currently recorded on the migration terminal are transmitted to the database of a location registration authority, and are saved, and are recorded on the migration terminal are eliminated. Therefore, if a migration terminal returns to an owner, the reservation and security of data which were recorded on the migration terminal are in the condition that data can be taken out at any time, while fully being secured. That is, the owner of a migration terminal can save reservation and safety of data by making a location registration authority upload the data in a migration terminal, holding the invalid state of a key stroke, even if a migration terminal changes in the condition that an electric wave arrives from the condition that an electric wave does not arrive.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention is a thing about the approach and migration terminal data protection system which protect the data recorded on the migration terminal. In more detail It is a thing about the approach and system by which the data recorded on the lost migration terminal prevent it being read to others, and being altered or being eliminated. Further in a detail It is related with the approach and system which attain security strengthening of the data protection of the migration terminal which exists in the place which an electric wave does not reach.

[Translation done.]

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PRIOR ART

[Description of the Prior Art] A cellular phone in recent years, PHS, PDA with communication facility (Personal Digital Assistant device), etc. have various functions (henceforth a migration terminal), and the owner is recording various data, for example, customer list of names, the address book, the creation document, etc. on these migration terminals. After these data turn on a migration terminal, when a user enters an ID number or a password, they are displayed on the screen of the migration terminal, and can be transmitted to other communication terminals, such as a personal computer. Thus, since the data recorded on the migration terminal can be transmitted and used for other communication terminals, they are very convenient.
[0003] Below, the conventional migration communication system is explained briefly. Drawing 10 is drawing showing the outline of the conventional migration communication system. In drawing 10 migration communication system The subscriber terminal 2 and the subscriber exchange 4, With the mobile communication gateway office 6, the base station control station 10, and the location registration authority 7 that is established in the mobile communication gateway office 6 or base station control station 10 grade, and has a database 8 It is constituted by the 1st cel 12 equipped with the 1st base station 18, the 2nd cel 14 equipped with the 2nd base station 20 and migration terminal 24, and the 3rd cel 16 equipped with the 3rd base station 22. Here, as an example, the migration terminal 24 carries out call origination, and the case where the subscriber terminal 2 of a fixed circuit is telephoned is explained. In addition, since it is also the same as when the migration terminal 24 carries out call origination and telephones other migration terminals, the explanation is omitted.
[0004] In migration communication system, many several km cels are arranged from 100m of radius numbers, and it is constituted so that a large service area may be covered. A base station is put on each cel and each base station 18 (20 and 22) is connected with the base station control station 10 by the fixed circuit. The migration terminal 24 is connected by the base station 20 and wireless circuit in area. If the migration terminal 24 carries out call origination now, the migration terminal 24 will be first connected by the 2nd base station 20 and wireless circuit. And through the base station control station 10, the mobile communication gateway office 6, and the subscriber exchange 4 which were connected by the fixed circuit, it connects with a partner's subscriber terminal 2, and the 2nd base station 20 can communicate now the migration terminal 24 and the subscriber terminal 2. The database 8 put on the location registration authority 7 is recording ID of the migration terminal proper which is the attribute of each migration terminal, the telephone number, accounting information, the positional information of in which base station area a migration terminal exists, etc. While the migration terminal 24 is switching on the power source, between the migration terminal 24 and the 2nd base station 20 in area, a communication link is performed at fixed spacing, the positional information of the migration terminal 24 is updated, and the update information is recorded on the database 8 of the location registration authority 7.
[0005] On the other hand, when the subscriber terminal 2 carries out call origination and communicates with the migration terminal 24, it asks the database 8 of the location registration authority 7 where the attribute of the migration terminal 24 is recorded, and a simultaneous call is performed from the base

station in the area (it consists of two or more cels, and is usually the magnitude of a prefecture unit) to which the migration terminal 24 belongs. A response of the migration terminal 24 performs a communication link between the subscriber terminal 2 and the migration terminal 24.

[0006] In the above conventional migration communication system, system behavior when the migration terminal 24 is lost is explained below using drawing 10 - drawing 13 . Drawing 11 is a flow chart explaining the actuation in which those who lost the migration terminal take out a migration terminal report of the loss of an article, and the purport of loss is registered into a location registration authority in the conventional migration communication system. In the conventional migration communication system, drawing 12 is a flow chart explaining the actuation which refuses the communication link with a migration terminal and a base station, when a migration terminal is lost. In the conventional migration terminal data protection system, drawing 13 is a sequence chart explaining the actuation which refuses the communication link with a migration terminal and a base station, when a migration terminal is lost.

[0007]

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EFFECT OF THE INVENTION

[Effect of the Invention] Since a key stroke becomes an invalid in being in the location which can communicate with a base station, it becomes impossible for those who found the migration terminal to read, alter or eliminate the data recorded into the migration terminal according to this invention, as explained above. Therefore, the security of the data recorded on the migration terminal is secured.
[0056] Furthermore, when a migration terminal is lost according to this invention, security is secured, without saving the data currently recorded on the migration terminal at database 8a of a location registration authority, and losing the data recorded on the migration terminal since the owner who lost the migration terminal later recovered self data from database 8a of a location registration authority.
[0057] Furthermore, according to this invention, since it is eliminated from a migration terminal after being saved at database 8a of a location registration authority, the data currently recorded on the migration terminal can prevent that the data memorized by the migration terminal are abused. Therefore, the security of the data recorded on the migration terminal is secured further.
[0058] Furthermore, since the key stroke of the found migration terminal is made into an invalid when the finder of a migration terminal is in the location which an electric wave does not reach according to this invention and the password entered by the finder is not in agreement with a predetermined thing, the data recorded on the migration terminal cannot be read, or it cannot alter or eliminate. Therefore, the security of the data recorded on the migration terminal is strengthened further.
[0059] Furthermore, since all key strokes other than the password of the migration terminal which it should have found when the password entered by the finder when a finder was in the location which an electric wave does not reach according to this invention was in agreement with a predetermined password are made into an invalid, read-out of the data recorded on the migration terminal, and an alteration or elimination can be prevented. In this case, although it becomes impossible to use it even if the owner of a migration terminal enters a right password, considering that the security of the data recorded on the migration terminal is strengthened much more, that effectiveness is far larger. Of course, if the owner of a migration terminal withdraws a report of the loss of an article to a location registration authority, again, a key stroke becomes effective and can use a migration terminal normally. In this case, desired data can be returned in an owner's own migration terminal from the database which a location registration authority has.
[0060] Furthermore, according to this invention, even if the finder of a migration terminal moves to the location which an electric wave reaches from the location which an electric wave does not reach, the invalid state of a key stroke is continued. In this case, since a migration terminal is in the location which an electric wave reaches, the data which the data currently recorded on the migration terminal are transmitted to the database of a location registration authority, and are saved, and are recorded on the migration terminal are eliminated. Therefore, if a migration terminal returns to an owner, the reservation and security of data which were recorded on the migration terminal are in the condition that data can be taken out at any time, while fully being secured. That is, the owner of a migration terminal can save reservation and safety of data by making a location registration authority upload the data in a migration terminal, holding the invalid state of a key stroke, even if a migration terminal changes in the condition

that an electric wave arrives from the condition that an electric wave does not arrive.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, in the conventional migration communication system, the user of the migration terminal 24 cannot regain the loss data currently recorded on the lost migration terminal 24. In drawing 12 , when a finder folds the antenna of the migration terminal 24 intentionally, or in being in the location which the electric wave from a base station does not reach Since communication with the 2nd base station 20 cannot do the migration terminal 24 (in the case [Step S106] of NO), a finder The key of the found migration terminal can be operated, an ID number or a password can be entered (step S130), and the data recorded on the migration terminal 24 can be read, altered or eliminated (step S132).
[0013] In addition, when loss occurs at the conventional migration terminal, and usually setting up the password of four digits first and carrying out actuation of a migration terminal or R/W of data, there is much what requires the input of this password. Since the card will serve as a disable and the buzzer of warning etc. will sound from ATM equipment if it is ATM, such as a bank, and the password (personal identification number) in which it made a mistake when withdrawing money is entered continuously several times, a crime can be prevented to some extent. However, at the conventional migration terminal, it is possible to enter a password any number of times, and if a password is entered a maximum of 104 times when it is a password setup of 4 figures, it can surely hit in a password. By this, there is greatly a danger that the communication link by without notice [of a migration terminal], surreptitious use of the data talked over the telephone or saved, and improper use will be performed, and a great trouble may be made to not only him but the 3rd person.
[0014] As mentioned above, when the migration terminal is used by those who found the lost migration terminal, various problems arise to the owner of the migration terminal. That is, the owner of a migration terminal who lost is asked for the telephone rate of the lost migration terminal. Furthermore, when data, such as an address book recorded on the migration terminal, are read and abused by those who found, it is altered or it is eliminated, the owner of a migration terminal will suffer unexpected damage.
[0015] This invention was made in view of the above-mentioned technical problem, and when a migration terminal loses the place made into the purpose and the migration terminal can communicate with a base station, the approach and migration terminal data protection system which protect the data in the migration terminal are offered by making the key stroke of the migration terminal into an invalid.
[0016] Moreover, other purposes of this invention offer the approach and migration terminal data protection system which protect the data in a migration terminal by transmitting the data recorded in the migration terminal to the database of a location registration authority, when a migration terminal is lost.
[0017] The purpose of further others of this invention offers the approach and migration terminal data protection system which protect the data in a migration terminal by eliminating the data recorded on the migration terminal, after transmitting the data recorded on the migration terminal to the database of a location registration authority.
[0018] this invention -- being the further -- others -- the purpose offers the approach and migration terminal data protection system which can attain security strengthening of the data protection in a

migration terminal by making the key stroke of a migration terminal into an invalid, even when it loses in the location where a migration terminal cannot communicate with a base station and a right password is entered.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is drawing showing the whole migration terminal data protection system configuration which protects the data recorded on the migration terminal of the gestalt of the 1 operation concerning this invention.
[Drawing 2] In the migration terminal data protection system of the gestalt 1 of operation concerning this invention, it is a flow chart explaining the actuation in which the purport of loss is registered into the report-of-the-loss-of-an-article Records Department in a location registration authority based on the report of the loss of an article from the owner of a migration terminal.
[Drawing 3] In the migration terminal data protection system of the gestalt 1 of operation concerning this invention, when a migration terminal is lost, it is a flow chart explaining the actuation which makes the key stroke of a migration terminal an invalid.
[Drawing 4] In the migration terminal data protection system of the gestalt 1 of operation concerning this invention, when a migration terminal is lost, it is a sequence chart explaining the actuation which makes the key stroke of a migration terminal an invalid.
[Drawing 5] In the migration terminal data protection system of the gestalt 2 of operation concerning this invention, it is a flow chart explaining the actuation which transmits the data of a migration terminal to a location registration authority.
[Drawing 6] In the migration terminal data protection system of the gestalt 2 of operation concerning this invention, it is a sequence chart explaining the actuation which transmits the data of a migration terminal to a location registration authority.
[Drawing 7] In the migration terminal data protection system of the gestalt 3 of operation concerning this invention, it is a flow chart explaining the actuation which eliminates the data within a migration terminal.
[Drawing 8] In the migration terminal data protection system of the gestalt 3 of operation concerning this invention, it is a sequence chart explaining the actuation which eliminates the data within a migration terminal.
[Drawing 9] In the migration terminal data protection system of the gestalt 4 of operation concerning this invention, it is a flow chart explaining the actuation which makes the key stroke of a migration terminal an invalid irrespective of whether the right password was entered by the finder.
[Drawing 10] It is drawing showing the outline of the conventional migration communication system.
[Drawing 11] In the conventional migration communication system, it is a flow chart explaining the actuation in which those who lost the migration terminal take out a migration terminal report of the loss of an article, and that is registered into a location registration authority.
[Drawing 12] In the conventional migration communication system, when a migration terminal is lost, it is a flow chart explaining the actuation which refuses the communication link with a migration terminal and a base station.
[Drawing 13] In the conventional migration terminal data protection system, when a migration terminal is lost, it is a sequence chart explaining the actuation which refuses communication with a migration

terminal and a base station.

[Description of Notations]

2 [-- A location registration authority, 8a / -- A database, 9 / -- The report-of-the-loss-of-an-article Records Department, 10 / -- A base station control station, 12 / -- The 1st cel, 14 / -- The 2nd cel, 16 / -- The 3rd cel, 18 / -- The 1st base station, 20 / -- The 2nd base station, 22 / -- The 3rd base station, 24a / -- Migration terminal] -- A subscriber terminal, 4 -- The subscriber exchange, 6 -- A mobile communication gateway office, 7

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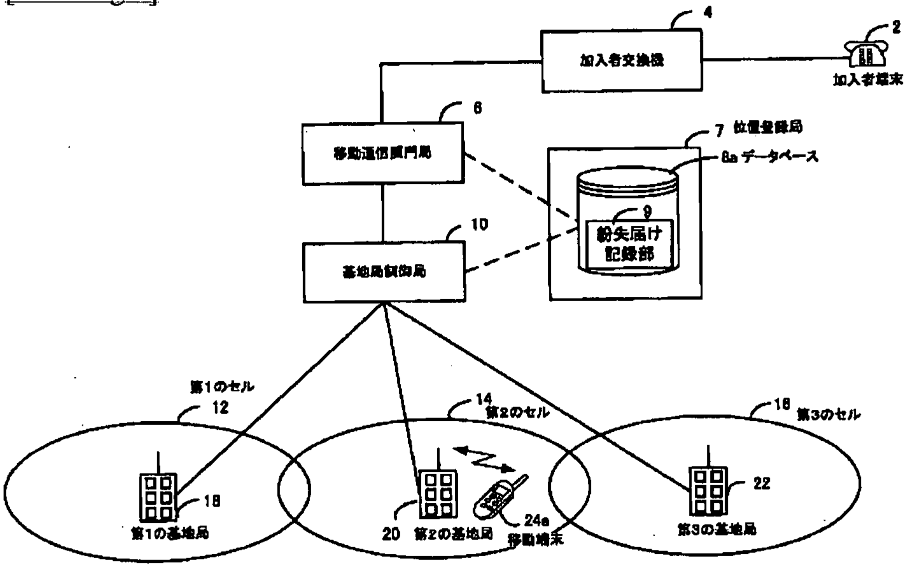
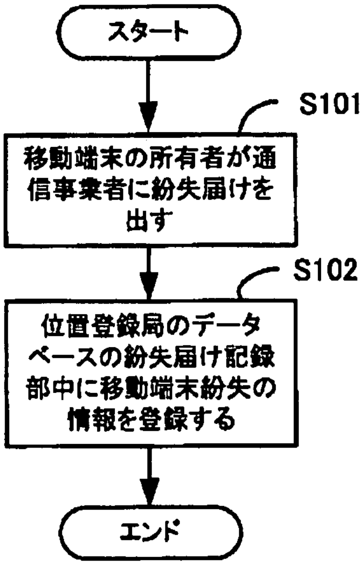
DRAWINGS

[Drawing 1]

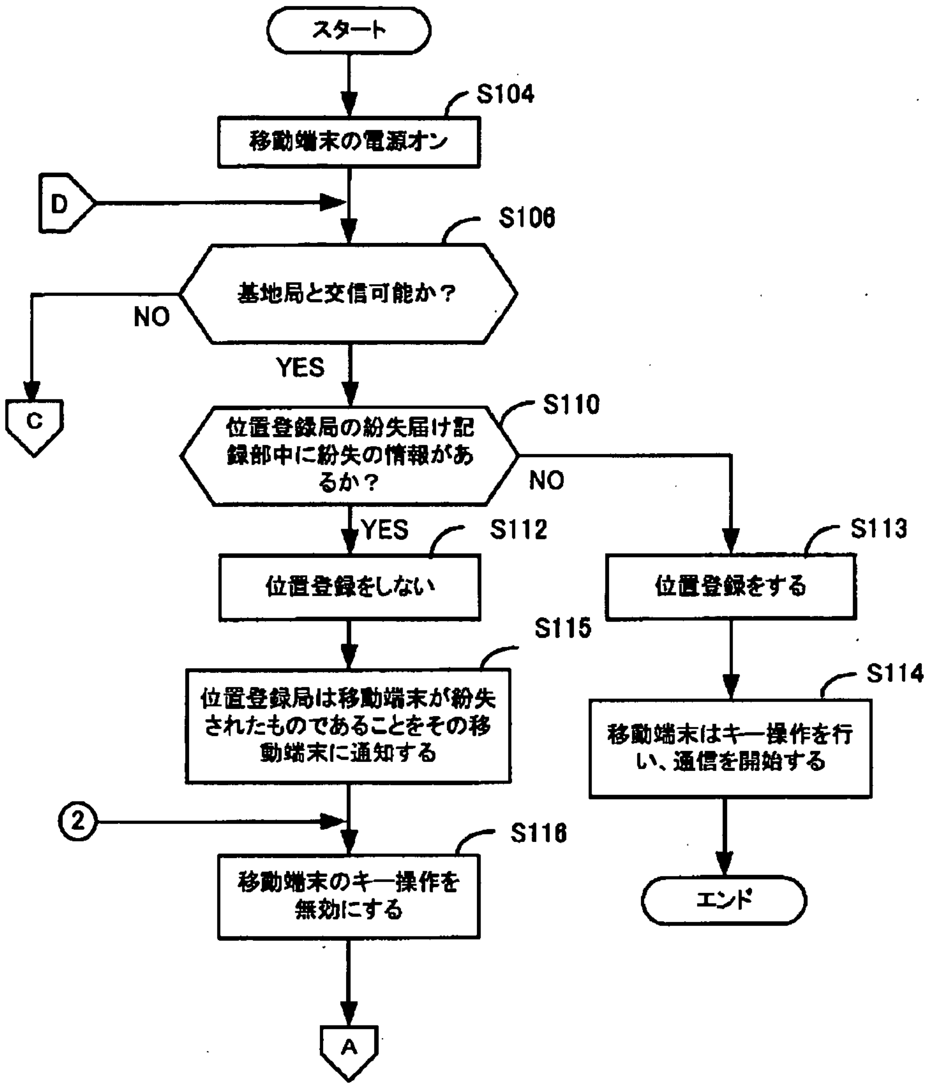

4
加入者交換機
2
加入者端末
6
移動通信関門局
7 位置登録局
8a データベース
9
紛失届け記録部
10
基地局制御局
第1のセル
12
14
第2のセル
16 第3のセル
18
第1の基地局
20 第2の基地局
24a
移動端末
22
第3の基地局

2: Subscriber terminal
4: Subscriber exchange
6: Mobile subscriber G.W office
10: Base station
7: Location Registration authority
8a: database
12: ~~First~~ cell
14: Second cell
12/20: BS
24a: migration terminal

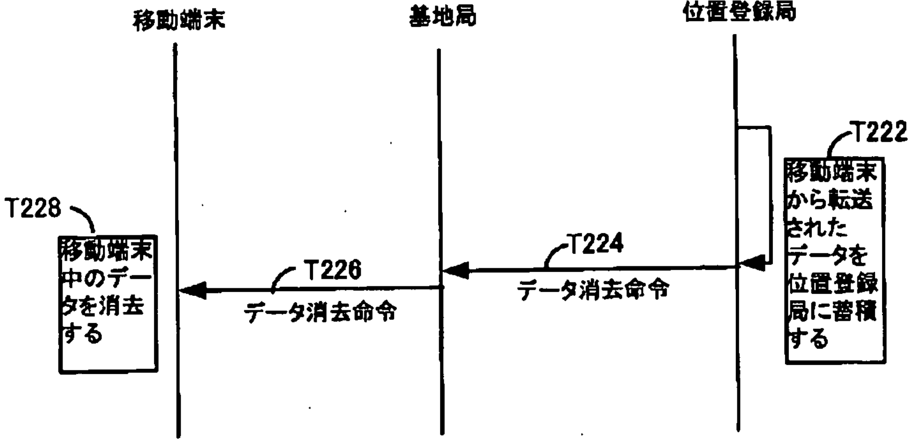
[Drawing 2]


スタート
S101
移動端末の所有者が通信事業者に紛失届けを出す
S102
位置登録局のデータベースの紛失届け記録部中に移動端末紛失の情報を登録する
エンド

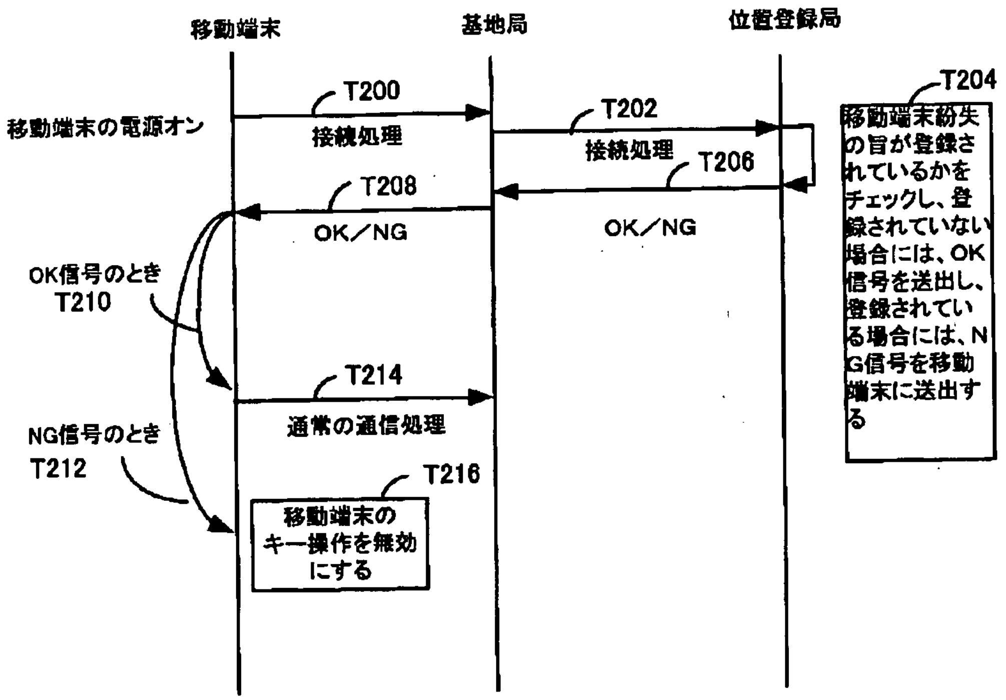
[Drawing 3]


スタート
S104
移動端末の電源オン
D
S106
基地局と交信可能か？
NO
YES
C
S110
位置登録局の紛失届け記録部中に紛失の情報があるか？
NO
YES
S112
位置登録をしない
S113
位置登録をする
S115
位置登録局は移動端末が紛失されたものであることをその移動端末に通知する
S114
移動端末はキー操作を行い、通信を開始する
②
S116
移動端末のキー操作を無効にする
エンド
A

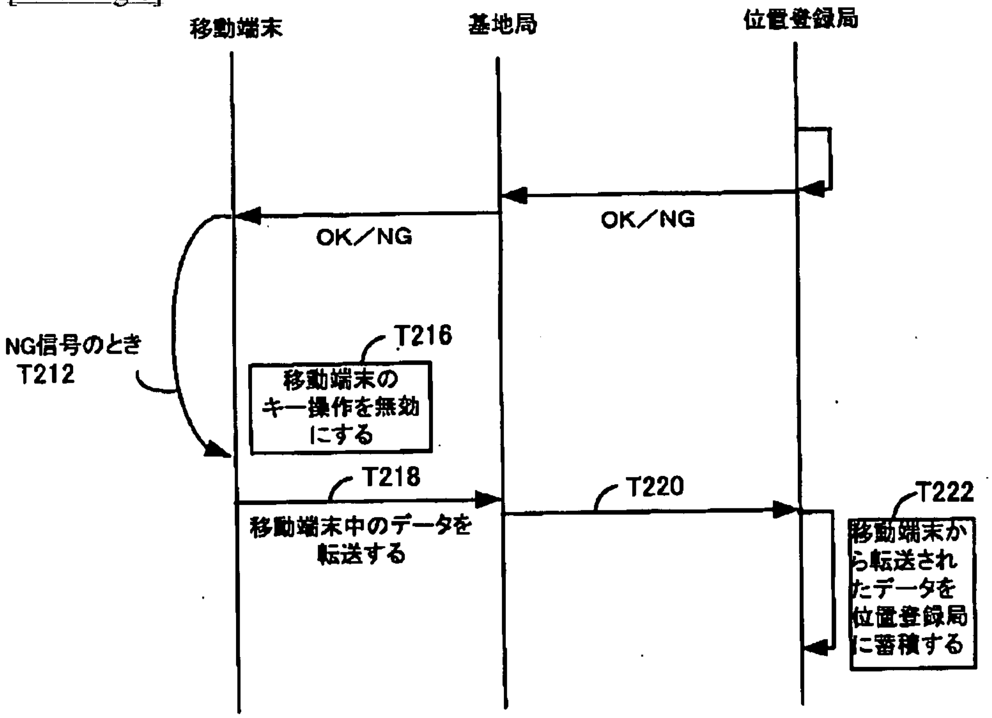
[Drawing 8]


移動端末
基地局
位置登録局
T222
移動端末から転送されたデータを位置登録局に蓄積する
T224
データ消去命令
T226
データ消去命令
T228
移動端末中のデータを消去する

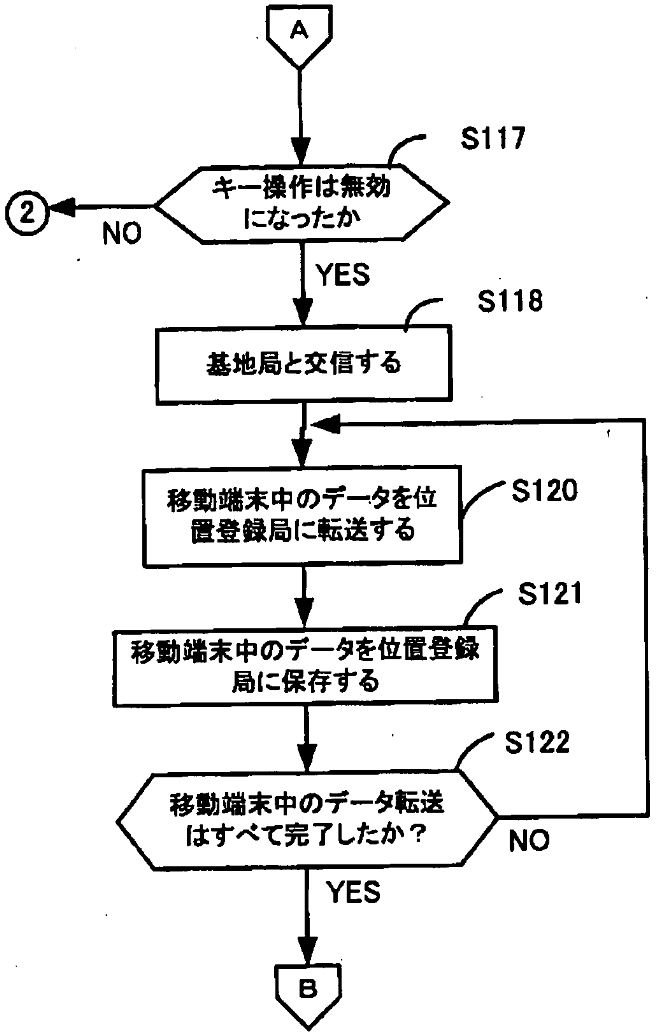
[Drawing 4]


移動端末
基地局
位置登録局
T200
移動端末の電源オン
接続処理
T202
接続処理
T204
移動端末紛失の旨が登録されているかをチェックし、登録されていない場合には、OK信号を送出し、登録されている場合には、NG信号を移動端末に送出する
T206
T208
OK／NG
OK／NG
OK信号のとき
T210
T214
通常の通信処理
NG信号のとき
T212
T216
移動端末のキー操作を無効にする

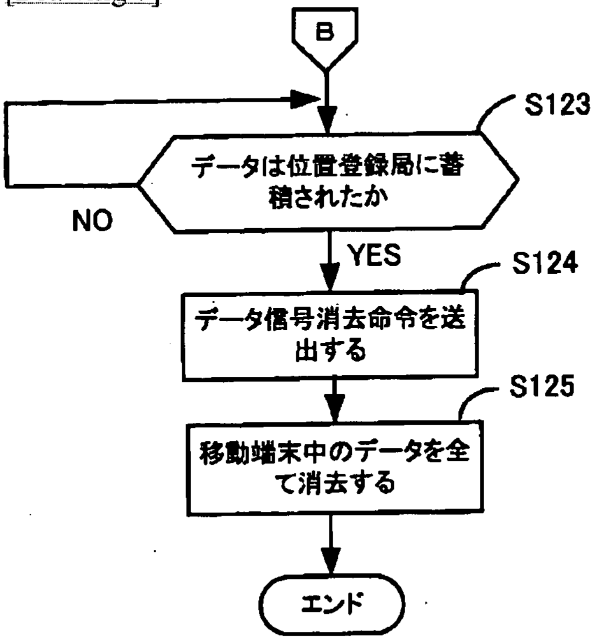
[Drawing 6]


移動端末
基地局
位置登録局
OK／NG
OK／NG
NG信号のとき
T212
T216
移動端末のキー操作を無効にする
T218
移動端末中のデータを転送する
T220
T222
移動端末から転送されたデータを位置登録局に蓄積する

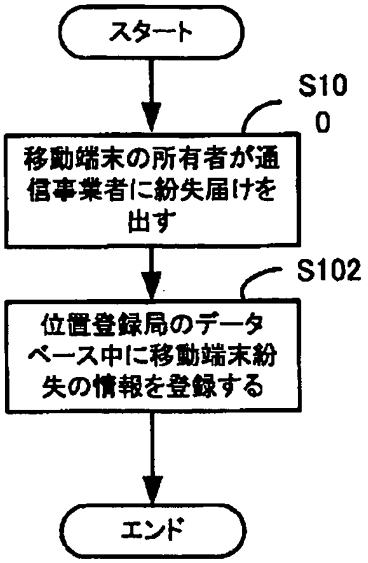
[Drawing 5]


A
S117
キー操作は無効になったか
NO
②
YES
S118
基地局と交信する
S120
移動端末中のデータを位置登録局に転送する
S121
移動端末中のデータを位置登録局に保存する
S122
移動端末中のデータ転送はすべて完了したか？
NO
YES
B

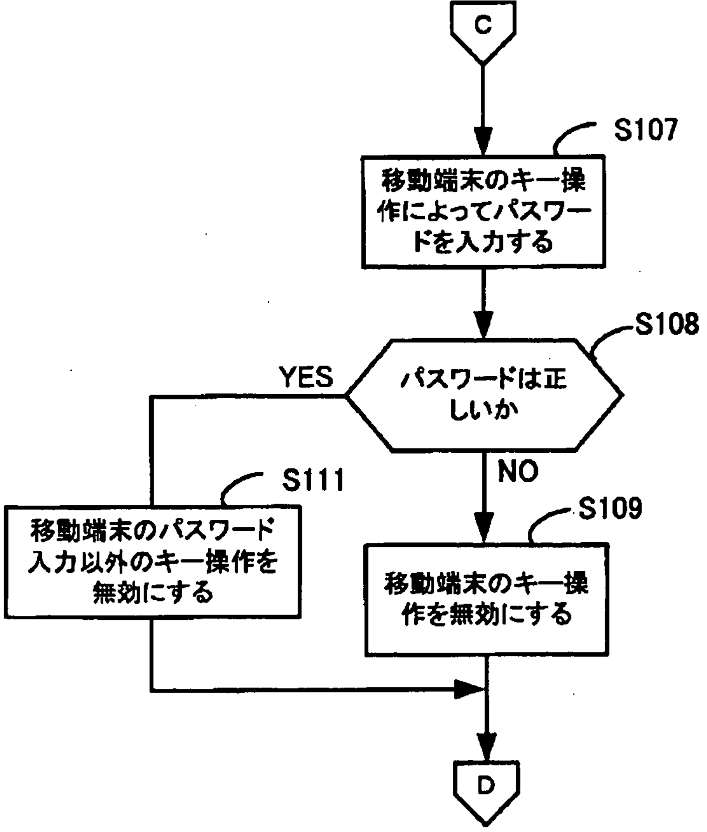
[Drawing 7]


B
S123
データは位置登録局に蓄積されたか
NO
YES
S124
データ信号消去命令を送出する
S125
移動端末中のデータを全て消去する
エンド

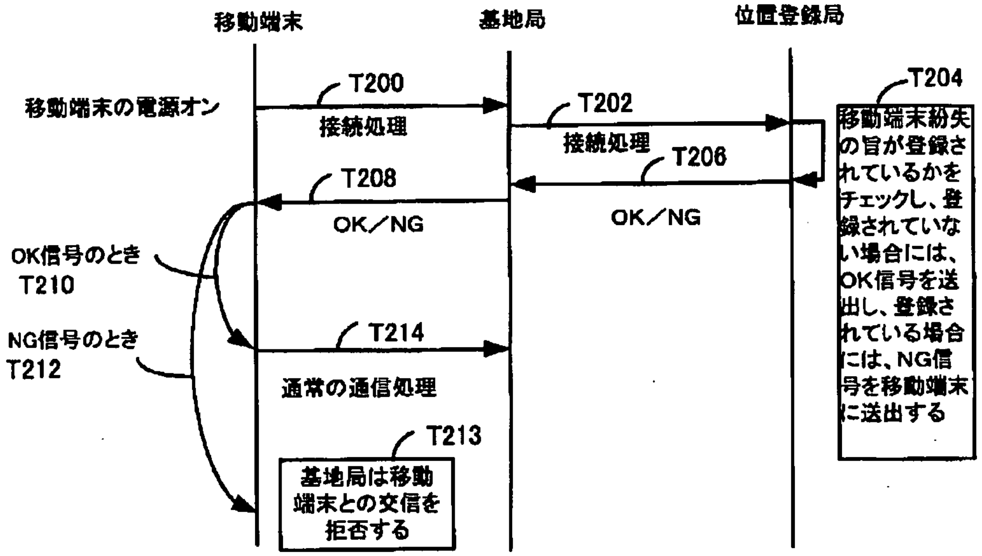
[Drawing 11]


スタート
S100
移動端末の所有者が通信事業者に紛失届けを出す
S102
位置登録局のデータベース中に移動端末紛失の情報を登録する
エンド

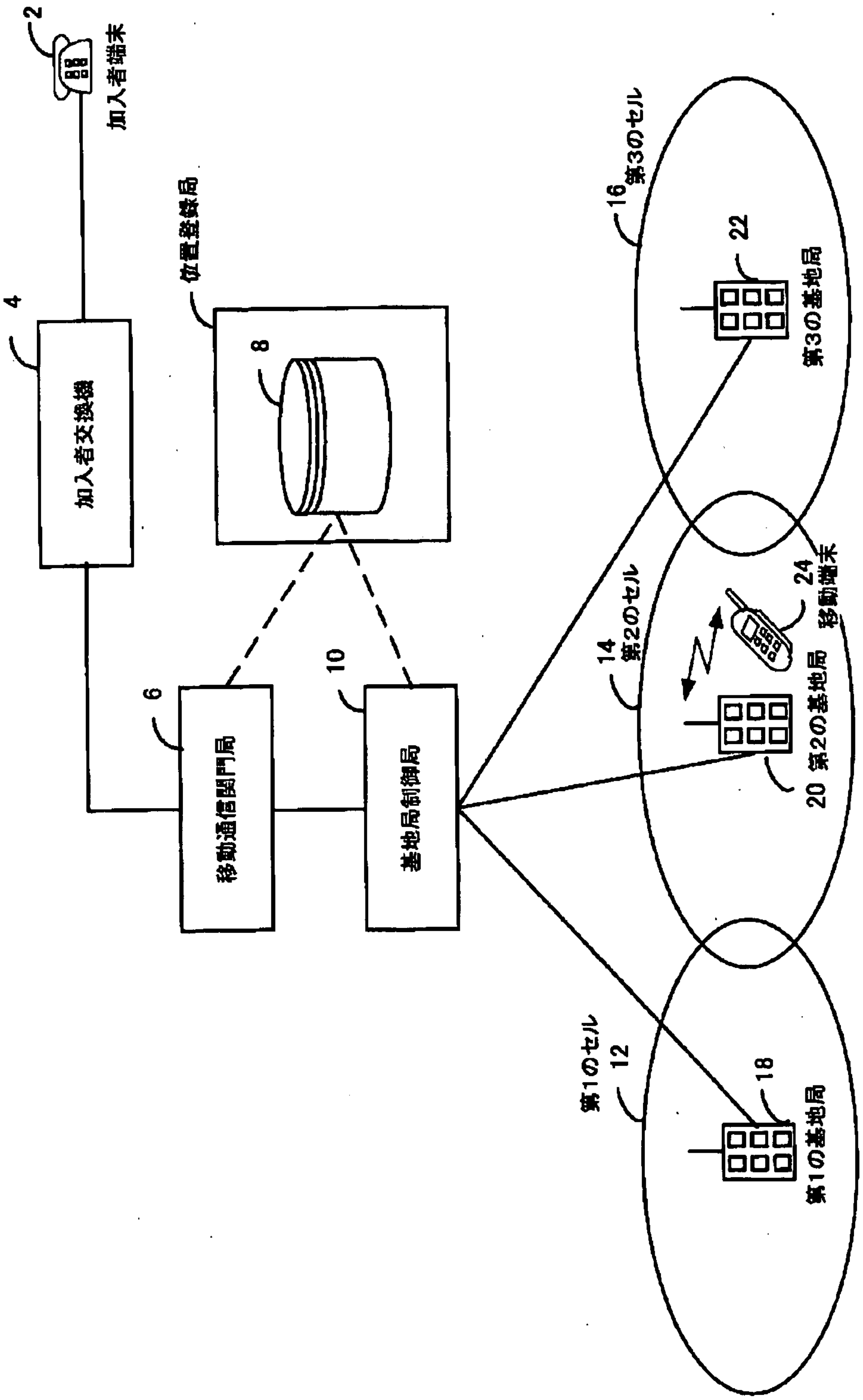
[Drawing 9]


C
S107
移動端末のキー操作によってパスワードを入力する
S108
パスワードは正しいか
YES
NO
S111
移動端末のパスワード入力以外のキー操作を無効にする
S109
移動端末のキー操作を無効にする
D

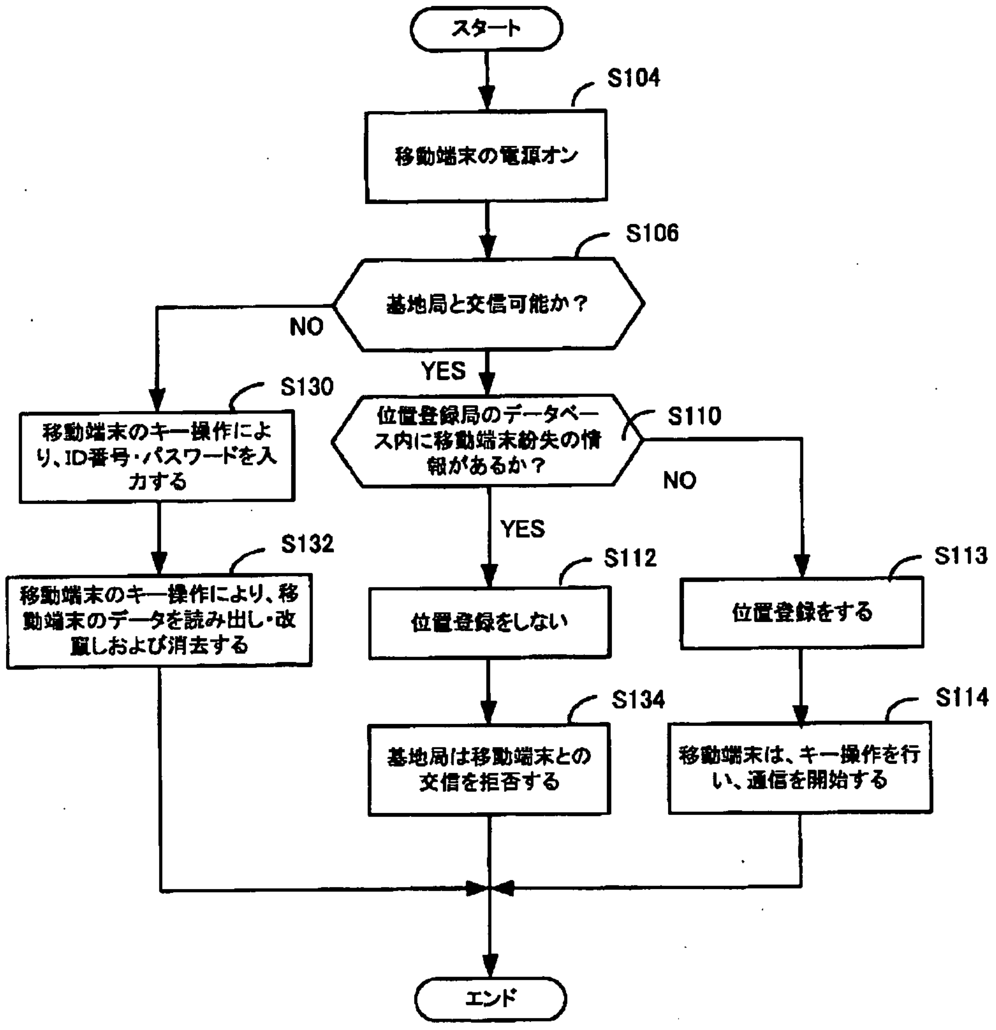
[Drawing 13]


移動端末
基地局
位置登録局
移動端末の電源オン
T200
接続処理
T202
接続処理
T204
移動端末紛失の旨が登録されているかをチェックし、登録されていない場合には、OK信号を送出し、登録されている場合には、NG信号を移動端末に送出する
T206
OK／NG
T208
OK／NG
OK信号のとき
T210
NG信号のとき
T212
T214
通常の通信処理
T213
基地局は移動端末との交信を拒否する

[Drawing 10]


2
加入者端末
4
加入者交換機
位置登録局
8
6
移動通信関門局
10
基地局制御局
16
第3のセル
22
第3の基地局
14
第2のセル
24
移動端末
20
第2の基地局
第1のセル
12
18
第1の基地局

[Drawing 12]


スタート
S104
移動端末の電源オン
S106
基地局と交信可能か？
NO
YES
S130
移動端末のキー操作により、ID番号・パスワードを入力する
S110
位置登録局のデータベース内に移動端末紛失の情報があるか？
NO
YES
S132
移動端末のキー操作により、移動端末のデータを読み出し・改竄しおよび消去する
S112
位置登録をしない
S113
位置登録をする
S134
基地局は移動端末との交信を拒否する
S114
移動端末は、キー操作を行い、通信を開始する
エンド

[Translation done.]